Amendments to the Specification:

Please replace the paragraph starting with "Monitor circuits 107-1" beginning on page 8, line 23 and ending on page 9, line 10, with the following amended paragraph:

Monitor circuits 107-1 ~ 107-N monitor the state of the optical signals such as the optical signal amplitude and the differential loss between the channels at each output port of the optical switch 105. A controller 110 includes a monitor selector 121, for selecting one of the monitor circuits 107-1 ~ 107-N, an amplifier controller 122 that controls each of the optical amplifiers 104-1 ~ 104-N, which compensate optical signals before their reaching the input ports 105I1 ~ 105IN according to the state of the outputted optical signal, an optical switch driver or operational unit 123, a switch control unit 124, which sets up the optical transfer paths from the input ports 105-I1 ~ 105IN to the output port 105-O1 ~ 105-ON of the optical switch 105 and a supervisory control unit 125, which supervises and controls the optical switching apparatus 100 by interlocking with the monitor selector 121, amplifier controller 122, and switch control unit 124. Furthermore, the controller 110 further includes a switch management unit 126 for managing and storing the switch configuration information needed to set up the optical switch, the information on the actually set-up paths within the switch, etc. This controller 110 further communicates with the operation management unit 150 regarding the monitoring or controlling of the optical switching apparatus 100 of the present invention, sets up the optical switch 105, and compensates for the loss and differential loss among the channels of the optical switch by controlling the monitor circuit 107-1 ~ 107-N and the optical amplifier 104-1 ~ 104-N.

Please replace the paragraphs starting with "Through the transfer" beginning on page 14, lines 4-27, with the following amended paragraphs:

Through the transfer control unit 144, the digital data, that is the feedback signal from the selected monitor circuit is transferred from the write register 142 to the readout register 143, and finally to the comparator 146 in Step S42.

The comparator compares the digital data received in Step S42 and the control target value obtained from the optical amplifier memory 133 and generates a result in Step S43.

The parameter-processing unit 147 prepares the parameters based on the comparison result in Step S43 to control the particularly selected one of the optical amplifiers 104-1 ~ 104-N, and it controls the selected one of the optical amplifiers 104-1 ~ 104-N through the digital-to-analog converter 148 in Step S44 to compensate for the loss and the differential loss among the different channels of the optical signals at the optical switch output port.

The above compensation steps S40 ~ S44 are repeated until all the optical paths in the optical switch 105 have been set up Step S45. Through its optical amplifiers 104-1 ~ 104-N, the optical switching apparatus 100' of the present invention properly compensates the loss and differential loss in optical signals after they pass through different channels in the optical switch 105 by monitoring the output ports of the optical switch 105. In addition, a high-speed and high-capacity optical switching apparatus with a simple configuration and the procedure and method of using this apparatus are describe as follows: Since the CPU 131 selects ~~the~~ one of the monitor circuits 107-1 ~ 107-N based on the content of the firmware or the software, the loss and the differential loss among the channels of the optical signals is easily and securely compensated even while the apparatus 100' is in service. Furthermore, when the optical connection configuration of the apparatus is changed, such a change is easily incorporated by modifying the firmware or the software in the optical switching apparatus 100'.